

The taxonomic status of the population of *Zerynthia cerisy* (GODART, [1824]) on the Greek island of Sámos (Lepidoptera : Papilionidae)

Alain OLIVIER

Samenvatting. De taxonomische status van de populatie van *Zerynthia cerisy* (GODART, [1824]) op het Griekse eiland Sámos (Lepidoptera : Papilionidae)

De diverse referenties in de literatuur betreffende het voorkomen van *Zerynthia cerisy* (GODART, [1824]) op het Griekse eiland Sámos worden overlopen. Dan volgt een Engelse vertaling van de oerbeschrijving van het taxon *Allancastris cerisyi sami* door SCHMIDT (1989). Ten slotte volgt een kritische evaluatie van de door SCHMIDT opgesomde eigenschappen van het taxon *sami*. Dit laatste taxon wordt uiteindelijk in synonymie geplaatst onder de nominaatvorm.

Résumé. Le statut taxonomique de la population de *Zerynthia cerisy* (GODART, [1824]) de l'île grecque de Sámos (Lepidoptera : Papilionidae)

Les diverses références dans la littérature concernant la présence de *Zerynthia cerisy* (GODART, [1824]) dans l'île grecque de Sámos sont énumérées. Ensuite une traduction anglaise de la description originale de *Allancastris cerisyi sami* par SCHMIDT (1989) est présentée. Enfin une évaluation critique des caractéristiques énumérées par SCHMIDT afin de justifier la séparation du taxon en question amène à la mise en synonymie de ce dernier taxon sous la forme nominale.

Key words : *Zerynthia - cerisy - Allancastris cerisyi sami - Samos*

Olivier A. : Luitenant Lippenslaan 43 B 14, B-2140 Antwerpen.

Introduction

The first report of the presence of *Zerynthia cerisy* (GODART, [1824]) on Sámos is made by REBEL (1935: 254) who states : «*Thais cerisyi deyrollei* Obthr. Insel Samos, zirka 15.IV (Rech.), ein kleines, defektes ♂ von 28 mm Vorderflügelänge zeigt den Vorderrandsteil der Vorderflügel stark schwarz gebändert. Die Anteapikalbinde ist besonders breit. Die Hinterflügel mit den drei Randzacken, wie bei *deyrollei*, sind schwach gezeichnet, nur mit je einem gerundeten und schwarz gesäumten, kleinen, roten Fleck am Vorder- und Innenrand».

BERNARDI (1961: 189, 1971: 28) records «*Allancastris cerisyi* Godart» from Sámos, basing himself on the record by REBEL (l.c.). ASSELBERGS (1978: 55) also mentions the species from Sámos stating : «*Allancastris cerisyi* (Godart). - A common spring butterfly. Most specimens collected in the second half of May are worn». OLIVIER (1987: 80) lists material of *Z. cerisy* from five different localities on Sámos, mostly collected by himself, and deposited in the Instituut voor Taxonomische Zoölogie (Zoölogisch Museum) Amsterdam. SCHMIDT (1989: 253-255) finally records *Z. cerisy* from Sámos and describes *Allancastris cerisyi sami* from this island.

The original description of *Allancastris cerisyi sami* (after SCHMIDT 1989)

The differentiating characters of this subspecies are (translated from German): «The butterfly flying on Samos is as large as *ferdinandi*, the colour of the male is palish yellow, that of the female however is predominantly ochreous yellow. Their black markings are very strong. Characteristic is

however in both sexes the chiefly longer tail on the hindwing as in *ferdinandi* and *cerisyi*. I name the form that flies on Samos as : *Allancastris cerisyi sami* n. subsp.

Holotype ♂ (Fig. 5) : locality Ormos Marathokambo, 10 m, Samos, 18.5.1987, coll. E. Schmidt.

Allotype ♀ (Fig. 5) : same locality, 18.5.1987, coll. E. Schmidt.

Paratypes : 11 ♂ and 11 ♀ from Ormos Marathokambo, Samos, coastal region, coll. E. Schmidt.»

Evaluation of the taxonomic status of *Allancastris cerisyi sami* SCHMIDT, 1989

Notes on the nomenclatural problems around the name *cerisy* and its first date of publication have been published elsewhere (cf. OLIVIER 1990 and references therein). Preliminary to a forthcoming paper on the butterflies of Sámos (OLIVIER, GARREVOET, VAN DER POORTEN & DILS in prep.) some notes on the taxonomic status of a population of one of the butterfly species from this island that was described as a new subspecies are appropriate.

During the years 1985 to 1990 I was able to collect large series of *Z. cretica* (REBEL, 1904) on Kríti and of *Z. cerisy* on all the Aegean islands from where it is known. Altogether 17 males and 13 females of *Z. cretica* and 188 males and 68 females of *Z. cerisy* from the other islands (and some localities in W and SW Turkey) are available for the present study (all material leg. et coll. A. OLIVIER, except the material from Efes leg. et coll. J.-P. BORIE [Cuise-la-Motte, F.]) (see also tables 1 and 2).

1) Size

The size is very variable in this butterfly. Most probably it is largely influenced by the nutritive qualities of the larval foodplant(s) that can differ according to the site. Specimens from mesic localities - well-irrigated orchards, woodland edges etc. as at e.g. the localities of Stavrínides and Vourliótes (Sámos) and Agiásos (Lésvos) - can be quite large; to the contrary material from localities in dry garrigue (e.g. Sími, the localities of Vathí and Kótsikas on Sámos) tends to be smaller.

SCHMIDT (l.c.) gives measurements of «so gross wie *ferdinandi* [5,5 - 6 cm]». The Sámos sample is indeed one of those with the specimens with the largest average wing length of all material considered here (cf. tables 1 and 2) but the variation within the population is so large and there is such a high degree of overlap with other populations that size cannot be used as a taxonomically differentiating character for the Sámos population. Interestingly *Z. cretica* is clearly having a smaller average wing length than all the *Z. cerisy* populations examined.

2) Colour

The colour of the male is palish yellow in material from Sámos but this feature also applies to the other populations. The females are said to be ochreous yellow by SCHMIDT (l.c.). Examination of the 12 females in coll. SCHMIDT revealed that all these specimens are of this colour indeed. Among my own 21 females from Sámos there are at least 7 specimens with an

Table 1. Variation in size in the males of *Zerynthia cretica* (REBEL, 1904) on Kríti and of *Zerynthia cerisy* (GODART, [1824]) on the Eastern Aegean islands (and at a few localities in W and SW Turkey).

Area of origin	n	Forewing size in mm (from base to apex)		
		min.	max.	mean
Kríti (Nóm. Lassíthi) [<i>Z. cretica</i>]	17	23,2	26,6	25,00
Ródos	33	23,5	30,5	27,21
Sími	7	24,6	29,1	27,43
Bozburun (Prov. Muğla, Turkey)	1	28,4	28,4	28,40
Kós	19	21,6	31,4	28,01
Sámos	44	22,9	34,1	28,65
Efes (Prov. İzmir, Turkey)	9	27,8	33,7	30,38
Híos	26	24,2	29,1	27,13
Lésvos	49	23,7	32,3	28,57

Table 2. Variation in size in the females of *Zerynthia cretica* (REBEL, 1904) on Kríti and of *Zerynthia cerisy* (GODART, [1824]) on the Eastern Aegean islands (and at a few localities in SW Turkey).

Area of origin	n	Forewing size in mm (from base to apex)		
		min.	max.	mean
Kríti (Nóm. Lassíthi) [<i>Z. cretica</i>]	13	20,6	25,8	24,20
Ródos	19	22,9	29,5	25,72
Sími	1	26,8	26,8	26,80
Bozburun (Prov. Muğla, Turkey)	2	25,6	28,0	26,80
2 km W. Karaltı (Prov. Muğla, Turkey)	1	31,0	31,0	31,00
Kós	6	27,4	29,5	28,88
Sámos	21	21,3	31,7	27,77
Híos	11	22,3	27,9	26,09
Lésvos	7	27,0	31,0	29,97

ochreous tinge, but 3 specimens are light yellowish (11 specimens are too worn to allow for an unambiguous decision). Moreover ochreous (or «dark») yellow females have been reported in *Z. cerisy* from Kós and Lésvos (OLIVIER 1986, 1990), from Kípros (Cyprus) (HOFMANN & ROSE 1987) as well as from several localities on the western coast of Turkey opposite to Sámos (LEESTMANS, MOTTET, VERHULST & CARBONELL 1986). Ochreous yellow females have also been reported occasionally in *Z. cretica* (by WEISS 1980, VERHULST 1990). The black markings in material from Sámos are not more strongly developed than in material from other islands and from Efes.

3) Tail on v4 of hindwing

The tail on the hindwing is indeed very well developed in specimens of both sexes from Sámos, but this is also the case with material from Sími, Kós, Efes, Híos and - occasionally - Ródos. On Lésvos the average length of the tails seems slightly less.

The type-locality of *Z. cerisy* is supposed to be Urla, some 30 km to the west of İzmir (Prov. İzmir, Turkey). The material from the Aegean islands and from W and SW Turkey can thus be considered quite representative of the taxon. With the exception of *Z. cretica*, which was elevated to species rank by

KOÇAK (1981 : 50) none of the populations of *Z. cerisy* on the Aegean islands deserves a subspecific separation. The population from Sámos has been shown here to exhibit no characters that differentiate it constantly from other populations of *Z. cerisy*, all features mentioned by SCHMIDT to the contrary being part of the normal range of variation of the species. Consequently the following synonymy applies to the taxon from Sámos :

Zerynthia cerisy (GODART, [1824])

- = *Thais cerisyi deyrollei* Obthr.; REBEL 1935: 254.
- = *Allancastris cerisyi* God; BERNARDI 1961: 187, 189.
- = *Allancastris cerisyi* Godart; BERNARDI 1971: 28.
- = *Allancastris cerisyi* Godart; ASSELBERGS 1978: 55, 56.
- = *Zerynthia cerisyi* (Godart, 1822); OLIVIER 1987: 80.
- = *Allancastris cerisyi sami* SCHMIDT 1989: 254-255, n. syn.

Note. All material of *Zerynthia* from Sámos in my own collection as well as material that I saw in other private and museum collections belongs to *Z. cerisy*. Therefore it can be safely assumed that the record of *deyrollei* by REBEL (1935) also applies to *cerisy*.

Acknowledgments

I would like to thank Dr E. SCHMIDT (Königsbrunn, B.R.D.) for kindly allowing access to his collection (visit paid on 27.I.1990) and Dr J.-P. BORIE (Cuise-la-Motte, F.) for the loan of his material of *Z. cerisy* from Efes (Prov. İzmir, Turkey).

Bibliography

- Asselbergs, J.E.F., 1978. A contribution to the knowledge of the Lepidoptera fauna of Sámos. - *Ent.Ber., Amst.* 38: 55-57.
- Bernardi, G., 1961. Biogéographie et spéciation des Lépidoptères Rhopalocères des îles méditerranéennes. - *Colloques int.Cent.natn.Rech.scient.* 94: 181-215.
- Bernardi, G., 1971. Biogéographie des Lépidoptères des îles égéennes. - *C.r.somm.Seanc.Soc. Biogeogr.* 1971: 21-32.
- Hofmann, P. & Rose, K., 1987. Zur Rhopaloceren-Fauna Zyperns (Lepidoptera). - *Nachr.ent. Ver.Apollo (N.F.)* 7: 133-141.
- Koçak, A.Ö., 1981. Critical check-list of European Papilionoidea (Lepidoptera). - *Priamus* 1: 46-90.
- Leestmans, R., Mottet, P., Verhulst, J. & Carbonell, F., 1986. Contribution à la connaissance de la faune printanière des Lépidoptères du Sud de l'Asie Mineure (Insecta Lepidoptera). - *Linn.belg.* 10: 334-381.
- Olivier, A., 1986. Spring butterflies on the Island of Kós (Greece) (Lepidoptera: Hesperioidea & Papilionoidea). - *Phegea* 14: 109-114.
- Olivier, A., 1987. Catalogue of the butterflies of the Greek islands in the collection of the Instituut voor Taxonomische Zoölogie (Zoölogisch Museum) Amsterdam (Lepidoptera: Hesperioidea & Papilionoidea). - *Phegea* 15: 77-88, 165-170.
- Olivier, A., 1990. Critical notes on the butterflies of the Greek island of Kastellórizo (Lepidoptera: Hesperioidea & Papilionoidea). - *Phegea* 18: 169-190.
- Rebel, H., 1935. Lepidopteren von den Agäischen Inseln. - *Sber.Akad.Wiss.Wien* 144: 253-262.
- Schmidt, E., 1989. Tagfalterbeobachtungen auf Samos. - *Ent.Z., Frankf.a.M.* 99: 249-256, 267-270.
- Verhulst, J., 1990. Delphes au printemps paradis entomologique. - *Lambillionica* 90: 23-34.
- Weiss, M., 1980. Ein Beitrag zur Kenntnis von *Parnalius cerisy* ssp. *cretica* (Rebel) und ssp. *martini* (Fruhstorfer) (Lep.: Papilionidae). - *Z.ArbGem.öst.Ent.* 32: 51-56.